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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/079,342	02/20/2002	Xiaolin Huang	SP-1237	7951

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EXAMINER

PRATT, HELEN F

ART UNIT

PAPER NUMBER

1761

DATE MAILED: 05/14/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/079,342	HUANG, XIAOLIN	
Examiner	Art Unit		
Helen F. Pratt	1761		

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)  Responsive to communication(s) filed on \_\_\_\_.

2a)  This action is **FINAL**.                    2b)  This action is non-final.

3)  Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)  Claim(s) 1-42 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

5)  Claim(s) 25-42 is/are allowed.

6)  Claim(s) 1-24 is/are rejected.

7)  Claim(s) \_\_\_\_\_ is/are objected to.

8)  Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

9)  The specification is objected to by the Examiner.

10)  The drawing(s) filed on \_\_\_\_\_ is/are: a)  accepted or b)  objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)  The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a)  All    b)  Some \* c)  None of:  
1.  Certified copies of the priority documents have been received.  
2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3.  Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1)  Notice of References Cited (PTO-892)  
2)  Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3)  Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.

4)  Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_.

5)  Notice of Informal Patent Application (PTO-152)

6)  Other: \_\_\_\_.

## **DETAILED ACTION**

### ***Claim Objections***

The numbering of claims is not in accordance with 37 CFR 1.126 which requires the original numbering of the claims to be preserved throughout the prosecution. When claims are canceled, the remaining claims must not be renumbered. When new claims are presented, they must be numbered consecutively beginning with the number next following the highest numbered claims previously presented (whether entered or not).

Misnumbered claim 33-42 been renumbered claims 32-41.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claim 1 are rejected under 35 U.S.C. 102(b) as being anticipated by K. Toft.

(Prog. Food and Nutrition Science)(Applicant's IDS).

Toft discloses a composition containing high methoxyl pectin and propylene glycol alginate (PGA) in ratios of 1 to 2 as in claim 1 (page 91, middle of page and on starting with Water Gels with H.M. Pectin.... The reference uses 2 parts pectin to 4 parts alginate, this corresponds to a 1 to 2 ratio, as does the ratio 0.5:1 in claim 1. The intended use is not given weight in a composition claim.

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ferrero (0639335) or Heisey et al. (2003/0035880) or Nunes (2003/0021878) in view of Toft (Prog. Food and Nutrition Science), pages 89-93.

Ferrero discloses a composition containing pectin and propylene glycol (PGA) in amounts of 1% and PGA in amounts of from .01 to .5% by weight. Also, the composition can contain milk, which is known to contain protein (page 2, lines 30-35, page 4, lines 1-50). Heisey et al. '880 disclose a composition containing pectin and PGA, which is a stabilizer for suspended materials (page 2, para. 0026). The ratio can be from .2 to .4 or .4 to .9 (claims 17 and claim 23). Nunes discloses a stabilizing composition containing pectin, alginate, soy protein and milk (casein containing) (abstract and page 9 para. 0088, page 5, para. 0060). Claim 2 differs from the references in that the composition is a protein-stabilizing agent. However, the references to Nunes and Heisey disclose that proteins can be added to the composition, therefore, it is seen that the composition also stabilizes proteins. As to Heisey, since the composition was shown, it would also stabilize proteins. Therefore, it would have been obvious to use a known protein stabilizing composition to stabilize proteins.

Claim 3 further requires that the agent is present in 10 to 70% of the protein material. However, it is seen that the amounts of the references of the stabilizing composition (pectin and PGA) do stabilize proteins, because nothing is seen that they are not stabilized. Therefore, it would have been obvious to use the amounts of the references to stabilize the ingredients, which include proteins.

Claims 4-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over the above combination of references as applied to claims 1-3 above, and further in view of Toft.

Claims 4 and 5 require a particular ratio of the stabilizers. However, Toft discusses the interactions between pectin and alginates and shows the influence of the pectin-alginate ratio on gel strength of a composition (page 89, abstract, page 90, 2<sup>nd</sup> para. And page 91, Table 1). Various amounts of the claimed ingredients are shown, which show that greater amounts of pectin allow for weaker gel strength and greater amounts of alginate allow for stronger gel strengths. Applicant requires basically one half to 1 part as much pectin as alginate up to 3.5 to 1 as in claim 1. The reference discloses such a ratio in disclosing 2 parts pectin to 4 parts alginate or a 1 to 2 ratio using high methoxyl pectin. (Table 1 and middle of the page 91 and down). Therefore, it would have been obvious to use a known ratio in a composition as shown by Toft in the composition of the combined references because pectin and PGA are known to interact and produce various gel strengths, which are determinants of their stabilizing ability.

Claim 6 further requires that the protein material is complexed with the pectin and PGA. However, as the ingredients are mixed together and boiled, as disclosed by Toft, it is seen that they are complexed. Nothing is seen at this time that they are not. Therefore, it would have been obvious to use a complex of the stabilizers in the claimed composition.

The particular amounts of 10-70% are seen to have been used as in claim 7 in the composition of the references because the compositions are said to have been stabilized. Therefore, it would have been within the skill of the ordinary worker to use enough of the stabilizers as shown by the references to stabilize the particular composition.

The limitations as to the particular ratio have been disclosed above and are obvious for those reasons as in claims 8 and 9.

Claim 10 further requires an acidic liquid having a pH from 3.0 to 5.5. Nunes discloses an orange juice composition with the juice as the major ingredient. Orange juice is known to be acidic and has a pH within the claimed range. Ferrero disclose a drink containing milk which is known to contain protein, and fruit juices which has a ph of 3 (page 4, Ex. 2, lines 11-25 and 49-50. Therefore, it would have been obvious to make a composition containing an acidic pH as shown by the combined references.

The use of soy protein has been disclosed above by Nunes as in claim 11. The soy solids are considered to be an isolate as in claim 12. Casein as in claim 13 is found in milk (Nunes, page 9, 0088). Nothing new or unobvious is seen in the use of wheat gluten or zein absent a showing of unexpected results as in claims 14 and 15. The

particular stabilizing agent ratio as in claim 16 has been disclosed above. Therefore, it would have been obvious to use the ingredients as claimed and to use particular ratios as claimed.

Claim 17 further requires particular amounts of protein in the beverage and claim 18 particular ratios of protein to stabilizing agent. Certainly, at least 0.01% would have been in the composition to Nunes. It would have been within the skill of the ordinary worker to use particular amounts of protein, as too much would precipitate at acidic pH's, which would be readily evident. Ferrero discloses the use of .7% protein in the composition and a combined amount up to 1.5% of the stabilizers (page 5, claims 6 and 7 and page 4, lines 25-31). The particular ratio of stabilizers as in claim 19 has been discussed above and is obvious for those reasons. Therefore, it would have been obvious to use particular amounts of protein in the claimed composition.

Claim 20 requires that the pH of the liquid be from 3.5 to 4.5, claim 21 that the liquid is a beverage, claim 22, that it is a juice, claim 23, that it is a fruit juice and claim 24 that it is a vegetable juice. Ferrero discloses a fruit juice (coconut) that has a pH of 3-4.5, is a beverage. No patentable distinction is seen at this time between fruit and vegetable juices, as the distinction is very fine (page 4, lines 10-31, page 5, lines 25-30). Therefore, it would have been obvious to make a composition as claimed as shown by the Ferrero reference.

***Allowable Subject Matter***

Claims 25-42 are allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Helen F. Pratt whose telephone number is 571-272-1404. The examiner can normally be reached on Monday to Friday from 9:30 to 6:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Milton Cano, can be reached on 572-272-1398. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HP 5-7-04

*H. Pratt*  
HELEN PRATT  
PRIMARY EXAMINER